



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,542	09/27/2001	Russell A. Houser	010905	3879

7590

06/13/2003

RUSSELL A. HOUSER
1787 VERDITE STREET
LIVERMORE, CA 94550

EXAMINER

PHAM, HUONG Q

ART UNIT	PAPER NUMBER
----------	--------------

3764

DATE MAILED: 06/13/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,542

Applicant(s)

HQUSER ET AL

Examiner

Huong Q. Pham

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As for claim 12, it is unclear(from the specification) which structure is the recited " decompression mechanism". As for claims 15-17, it is unclear what structure of the decompression mechanism allows the decompression mechanism to perform the recited functions in claims 15-17.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As for claims 1, 7 and 12, " superelastic" is a relative

Art Unit: 3764

term, it is unclear what material is considered to be "superelastic". The following terms lack proper antecedent basis: "the flex region" (claims 2 and 3), "intersecting regions" (claim 8), "said decompression plane" (claim 17). As for claim 12, it is unclear which direction is the "outward" direction for the recited "outward force". As for claim 17, it is unclear which plane is the recited "second plane" (where is the first plane?, which direction is the first or second plane?).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Bullock (2,195,024). As for claim 1, Bullock shows every claimed feature of claim 1 including a superelastic member A, and a covering 1. Note that "superelastic" is a relative term. As for claims 3 and 10, note the stop 2 of Bullock. As for claims 5 and 11 note that claims 5 and 11 are only functional statements of intended use without any further limitation of structure, and note that the tightening links of super elastic member A of Bullock can be deflected with an external force into an enlarged configuration for placement. As for claims 6 and 9, note the locking mechanism C of Bullock. As for claim 8, note the interconnect mechanism 4 of Bullock.

Art Unit: 3764

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock in view of Greenfield (5,261,871) or Brown (4,665, 905). While Bullock does not teach a loop at the flex region, Greenfield (Figures 9 & 12) and Brown teach this structure. In view of the teachings of Greenfield (Figures 9 & 12) and Brown, it would have been obvious to an ordinary skill in the art at the time the invention was made to provide the spring link of the brace of Bullock with a loop in order to change the degree of resistance against (or the support for) the flexion of the joint of a wearer.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castillo et al (4,856,501) in view of Greenfield. As for claim 1, Castillo et al teaches every claimed feature of claim 1 except for a covering. Greenfield teaches superelastic wires received in pockets for covering the wires. In view of the teaching of Greenfield, it would have been obvious to an ordinary skill in the art at the time the invention was made to provide covering for the superelastic member of Castillo et al in order to protect or cover the superelastic member. Note that " superelastic' is a relative term. As

Art Unit: 3764

for claim 2, while Castillo et al does not teach a loop at the flex region, Greenfield (Figures 9 & 12) teaches this structure. In view of the teaching of Greenfield (Figures 9 & 12) , it would have been obvious to an ordinary skill in the art at the time the invention was made to provide the spring link of the brace of Castillo et al with a loop in order to change the degree of resistance against the flexion of the joint of a wearer. As for claims 3 and 10, note Figures 7-12 of Castillo et al. As for claims 5 and 11, note that claims 5 and 11 are only functional statements of intended use without any further limitation of structure. As for claims 6 and 9, note locking mechanism 32, 35, 23 (Figure 1) of Castillo et al. As for claim 8, note the interconnect mechanism (Figures 7-12) of Castillo et al.

Claims 1,2, 4-7, 9,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Greenfield. As for claim 1, Brown teaches every claimed feature of claim 1 except for a covering. Greenfield teaches superelastic wires received in pockets for covering the wires. In view of the teaching of Greenfield, it would have been obvious to an ordinary skill in the art at the time the invention was made to provide covering for the superelastic member of Brown in order to protect or cover the superelastic member. Note that " superelastic" is a relative term. As for claim 2, note loop 5 of Brown(Figure 1). As for claims 5 and 11, note that claims 5 and 11 are only functional statements of intended use without any further limitation of structure, and note that the tightening links of super elastic member of Brown can be deflected with an external force into an enlarged configuration for placement.

Claims 3, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Greenfield as applied to claims 1,2, 4-7, 9,11 above, and further in view of Dasefsky (4,607,628) or Castillo et al. As for claims 3 and 10, while Brown does not teach a stop mechanism, Dasefsky teaches a stop mechanism 28 (Figures 1 and 5), Castillo et al teaches a stop mechanism (Figures 7-12). In view of the teachings of Dasefsky and Castillo et al, it would have been obvious to an ordinary skill in the art at the time the invention was made to provide the spring link of Brown with a stop mechanism in order to control the deflection of the flex region. As for claim 8, while Brown does not teach an interconnect mechanism, Castillo et al teaches this interconnect mechanism (Figures 7-12). In view of the teaching of Castillo et al, it would have been obvious to an ordinary skill in the art at the time the invention was made to replace the parts 5 of Brown with the interconnect mechanism of Castillo et al. The replacement of one structure for another well-known structure in the art is a matter of obvious engineering design choice, and does not provide any unexpected result, and therefore is not patentable over prior art.

Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hittenberger (2,453, 370) in view of Greenfield. As for claim 12, Hittenberger teaches every claimed feature of claim 12 except for the superelastic material recited in claim 12. Greenfield teaches the use of this material for wire members. In view of the teaching of Greenfield, it would have been obvious to an ordinary skill in the art at the

Art Unit: 3764

time the invention was made to use superelastic material for the brace of Hittenberger. Note that "superelastic" is a relative term. As for claim 13, note that the tightening links of Hittenberger are "intergrated" with the spring links. As for claims 14, 16 and 17, note that claims 14, 16 and 17 are only functional statements without any further limitation of structure to support the recited functions. As for claim 18, note that the wire members of Greenfield are made of nickel titanium.


Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock, or Dashefsky, or Hass in view of Greenfield. Bullock teaches a superelastic member A, a locking mechanism C, a decompression mechanism 1, 2, 7, 7a. Dashefsky teaches a brace comprises one single rod of material as recited in claim 19 with a decompression mechanism 28. Hass teaches a brace with one single rod of material (for example, loop A) with a decompression mechanism a, B', D, E, or K. Greenfield teaches wire members made of "superelastic" material. In view of the teaching of Greenfield, it would have been obvious to an ordinary skill in the art at the time the invention was made to use superelastic material for the brace of Bullock, or Dashefsky, or Hass. The use of one well-known material in the art to make a structural member instead of using another material is only a matter of obvious engineering design choice, and does not provide any unexpected result, and therefore is not patentable over prior art.

Art Unit: 3764

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huong Q. Pham whose telephone number is (703) 305-5129. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on (703) 308 - 2698. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



NICHOLAS D. LUCCHESI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

June 2, 2003